

Work Order ID 151155-1

\*151155\*

Page 1

Monday, September 12, 2016 11:34:58 AM

Item ID: D3965-4

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: Bearing, Spherical

Stop \*NS2\*

Start Date: 9/20/2016 Start Qty: 10.00

Required Date: 10/5/2016 Req'd Qty: 10.00

Reference:

Cust Item ID:

Customer:

Split-1-  
\*10\*  
\*10\*  
4x

Approvals:

Process Plan: DAS

Date: SEP 12 2016 Tooling:

Date:

QC: 21

Date: SPC (Y/N):

Date:

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3965

B

100

0.00

\*100\*

Purchasing

Purchasing

Memo

PURCHASING

Issue P/O: 33625

Purchase Part Number: 63215K52

Possible Supplier: McMaster

Material release note is required

0.00

10

SEP 12 2016

DAS  
13  
9-89

110

Receive & Inspect for Damage & Mat'l Certs

0.00

\*110\*

Packaging

Packaging

Memo

0.03

4x Split-9-15

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |                                                            |                                                 |                                               |            |  |  |                |  |  |                                      |                                             |                                          |                                           |                                           |                                           |                                 |                                   |                                  |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                                                            |                                             |                                            |                                   |                                          |                                |                                        |                                          |                                     |                                             |                                           |                                   |                                      |                                  |                                  |                                           |                                  |                                     |                                        |                                     |                                 |                              |                                              |                                             |                                                          |                                       |                                  |                                     |                                              |                                        |                                      |                                                |                                           |                                           |                                                |  |  |  |  |                                        |                                   |  |  |               |  |  |  |
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| <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: left;">Root Cause</th> <th colspan="3" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td>Environment <input type="checkbox"/></td> <td><input type="checkbox"/> No Re-verification</td> <td><input type="checkbox"/> Pressure/Forced</td> <td><input type="checkbox"/> Temperature/Cure</td> <td><input type="checkbox"/> Power Loss/Surge</td> <td><input type="checkbox"/> Positioned Wrong</td> </tr> <tr> <td>Design <input type="checkbox"/></td> <td><input type="checkbox"/> Operator</td> <td><input type="checkbox"/> Bending</td> <td><input type="checkbox"/> Set-up</td> <td><input type="checkbox"/> Folio/Program</td> <td><input type="checkbox"/> Outside Dimensions</td> </tr> <tr> <td>Doc/Data <input type="checkbox"/></td> <td><input type="checkbox"/> Offset/Setup</td> <td><input type="checkbox"/> Centre Not Concentric</td> <td><input type="checkbox"/> BOM/Route</td> <td><input type="checkbox"/> Grain</td> <td><input type="checkbox"/> Over/Under tolerance</td> </tr> <tr> <td>Equip/Tooling <input type="checkbox"/></td> <td><input type="checkbox"/> Supplier</td> <td><input type="checkbox"/> Cracks</td> <td><input type="checkbox"/> Broken/Damage/Defect</td> <td><input type="checkbox"/> Weld</td> <td><input type="checkbox"/> Part Incorrect</td> </tr> <tr> <td>Handling/Pre <input type="checkbox"/></td> <td><input type="checkbox"/> Training</td> <td><input type="checkbox"/> Crimp/Kink/Ripple/Wave</td> <td><input type="checkbox"/> Inspection Incomplete/Unqualified</td> <td><input type="checkbox"/> Wrong Stock Pulled</td> <td><input type="checkbox"/> Part Lost/Missing</td> </tr> <tr> <td>Material <input type="checkbox"/></td> <td><input type="checkbox"/> Use for Testing</td> <td><input type="checkbox"/> Cuffs</td> <td><input type="checkbox"/> Contamination</td> <td><input type="checkbox"/> Out of Sequence</td> <td><input type="checkbox"/> Part Moved</td> </tr> <tr> <td>Internal Transport <input type="checkbox"/></td> <td><input type="checkbox"/> Poor Information</td> <td><input type="checkbox"/> Crushing</td> <td><input type="checkbox"/> Countersink</td> <td><input type="checkbox"/> Off-set</td> <td><input type="checkbox"/> Drawing</td> </tr> <tr> <td>Tribal Knowledge <input type="checkbox"/></td> <td><input type="checkbox"/> Rushing</td> <td><input type="checkbox"/> Heat Treat</td> <td><input type="checkbox"/> Cut Too Short</td> <td><input type="checkbox"/> Mislabeled</td> <td><input type="checkbox"/> Finish</td> </tr> <tr> <td>LOA <input type="checkbox"/></td> <td><input type="checkbox"/> Product Improvement</td> <td><input type="checkbox"/> Wave/Twist in Tube</td> <td><input type="checkbox"/> Instructions Incomplete/Unclear</td> <td><input type="checkbox"/> Fit/Function</td> <td><input type="checkbox"/> Misread</td> </tr> <tr> <td>Substation <input type="checkbox"/></td> <td><input type="checkbox"/> Process Improvement</td> <td><input type="checkbox"/> Marks/Chatter</td> <td><input type="checkbox"/> Drill Holes</td> <td><input type="checkbox"/> Misaligned/off center</td> <td><input type="checkbox"/> Turning Sequence</td> </tr> <tr> <td>Past Expiry Date <input type="checkbox"/></td> <td><input type="checkbox"/> Manufacturing Process</td> <td colspan="4" rowspan="2"></td> </tr> <tr> <td>Misidentified <input type="checkbox"/></td> <td><input type="checkbox"/> Past Due</td> </tr> <tr> <td colspan="2"></td> <td colspan="4" style="text-align: left;">OTHER : _____</td> </tr> </tbody> </table> |                                                                                                                                                                                    |                                                                                                                                                                                                                                     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<input type="checkbox"/> Pressure/Forced | <input type="checkbox"/> Temperature/Cure | <input type="checkbox"/> Power Loss/Surge | <input type="checkbox"/> Positioned Wrong | Design <input type="checkbox"/> | <input type="checkbox"/> Operator | <input type="checkbox"/> Bending | <input type="checkbox"/> Set-up | <input type="checkbox"/> Folio/Program | <input type="checkbox"/> Outside Dimensions | Doc/Data <input type="checkbox"/> | <input type="checkbox"/> Offset/Setup | <input type="checkbox"/> Centre Not Concentric | <input type="checkbox"/> BOM/Route | <input type="checkbox"/> Grain | <input type="checkbox"/> Over/Under tolerance | Equip/Tooling <input type="checkbox"/> | <input type="checkbox"/> Supplier | <input type="checkbox"/> Cracks | <input type="checkbox"/> Broken/Damage/Defect | <input type="checkbox"/> Weld | <input type="checkbox"/> Part Incorrect | Handling/Pre <input type="checkbox"/> | <input type="checkbox"/> Training | <input type="checkbox"/> Crimp/Kink/Ripple/Wave | <input type="checkbox"/> Inspection Incomplete/Unqualified | <input type="checkbox"/> Wrong Stock Pulled | <input type="checkbox"/> Part Lost/Missing | Material <input type="checkbox"/> | <input type="checkbox"/> Use for Testing | <input type="checkbox"/> Cuffs | <input type="checkbox"/> Contamination | <input type="checkbox"/> Out of Sequence | <input type="checkbox"/> Part Moved | Internal Transport <input type="checkbox"/> | <input type="checkbox"/> Poor Information | <input type="checkbox"/> Crushing | <input type="checkbox"/> Countersink | <input type="checkbox"/> Off-set | <input type="checkbox"/> Drawing | Tribal Knowledge <input type="checkbox"/> | <input type="checkbox"/> Rushing | <input type="checkbox"/> Heat Treat | <input type="checkbox"/> Cut Too Short | <input type="checkbox"/> Mislabeled | <input type="checkbox"/> Finish | LOA <input type="checkbox"/> | <input type="checkbox"/> Product Improvement | <input type="checkbox"/> Wave/Twist in Tube | <input type="checkbox"/> Instructions Incomplete/Unclear | <input type="checkbox"/> Fit/Function | <input type="checkbox"/> Misread | Substation <input type="checkbox"/> | <input type="checkbox"/> Process Improvement | <input type="checkbox"/> Marks/Chatter | <input type="checkbox"/> Drill Holes | <input type="checkbox"/> Misaligned/off center | <input type="checkbox"/> Turning Sequence | Past Expiry Date <input type="checkbox"/> | <input type="checkbox"/> Manufacturing Process |  |  |  |  | Misidentified <input type="checkbox"/> | <input type="checkbox"/> Past Due |  |  | OTHER : _____ |  |  |  |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| Design <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| Equip/Tooling <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| Handling/Pre <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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                     |                                           |                                           |                                           |                                 |                                   |                                  |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                   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| Material <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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                     |                                           |                                           |                                           |                                 |                                   |                                  |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                   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| Internal Transport <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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                     |                                           |                                           |                                           |                                 |                                   |                                  |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                   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| Tribal Knowledge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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                     |                                           |                                           |                                           |                                 |                                   |                                  |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                   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| LOA <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| Substation <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Drill Holes                       | <input type="checkbox"/> Misaligned/off center  | <input type="checkbox"/> Turning Sequence     |            |  |  |                |  |  |                                      |                                             |                                          |                                           |                                           |                                           |                                 |                                   |                                  |                                 |                                        |                                             |                                   |                                       |                                                |                                    |                                |                                               |                                        |                                   |                                 |                                               |                               |                                         |                                       |                                   |                                                 |                   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| Past Expiry Date <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| Misidentified <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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Monday, September 12, 2016 11:34:58 AM

Page 2

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| Run | Start | *NR1* |
|     | Stop  | *NR2* |

SEP 19 2016

4 SEP 19 2016

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**DAS**  
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DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

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|--------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------------------|-------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |                                     | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                                 | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube <input type="checkbox"/></td> <td style="width:15%;">Cross tube <input type="checkbox"/></td> <td style="width:15%;">Water Jet <input type="checkbox"/></td> <td style="width:15%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table> |                                                |                                               |                                                                                                                                               |  |  | Skid-tube <input type="checkbox"/> | Cross tube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/> | Machining <input type="checkbox"/> | Small Fab <input type="checkbox"/> | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/> | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/> | Large Fab <input type="checkbox"/> | Composite <input type="checkbox"/> | Supplier <input type="checkbox"/> |  |
| Skid-tube <input type="checkbox"/>                           | Cross tube <input type="checkbox"/> | Water Jet <input type="checkbox"/>                                                                                                                                                 | Engineering <input type="checkbox"/>            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Machining <input type="checkbox"/>                           | Small Fab <input type="checkbox"/>  | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                         | Quality <input type="checkbox"/>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Thermoforming <input type="checkbox"/>                       | Finishing <input type="checkbox"/>  | Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                       | Other <input type="checkbox"/>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Large Fab <input type="checkbox"/>                           | Composite <input type="checkbox"/>  | Supplier <input type="checkbox"/>                                                                                                                                                  |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Date :                                                       |                                     | Step #:                                                                                                                                                                            |                                                 | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               | MRB (QSI042) Approval<br><br><br>Completed By<br><br><br>Lead hand / Supervisor Approval Verification<br><br><br>QC / QA Coordinator Approval |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Description Work Order Deviation                             |                                     |                                                                                                                                                                                    |                                                 | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
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|                                                              |                                     |                                                                                                                                                                                    |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Root Cause                                                   |                                     | FAULT CATEGORY                                                                                                                                                                     |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Environment <input type="checkbox"/>                         | <input type="checkbox"/>            | No Re-verification <input type="checkbox"/>                                                                                                                                        | Pressure/Forced <input type="checkbox"/>        | Temperature/Cure <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Power Loss/Surge <input type="checkbox"/>      | Positioned Wrong <input type="checkbox"/>     |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Design <input type="checkbox"/>                              | <input type="checkbox"/>            | Operator <input type="checkbox"/>                                                                                                                                                  | Bending <input type="checkbox"/>                | Set-up <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Folio/Program <input type="checkbox"/>         | Outside Dimensions <input type="checkbox"/>   |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Doc/Data <input type="checkbox"/>                            | <input type="checkbox"/>            | Offset/Setup <input type="checkbox"/>                                                                                                                                              | Centre Not Concentric <input type="checkbox"/>  | BOM/Route <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Grain <input type="checkbox"/>                 | Over/Under tolerance <input type="checkbox"/> |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Equip/Tooling <input type="checkbox"/>                       | <input type="checkbox"/>            | Supplier <input type="checkbox"/>                                                                                                                                                  | Cracks <input type="checkbox"/>                 | Broken/Damage/Defect <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Weld <input type="checkbox"/>                  | Part Incorrect <input type="checkbox"/>       |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Handling/Pre <input type="checkbox"/>                        | <input type="checkbox"/>            | Training <input type="checkbox"/>                                                                                                                                                  | Crimp/Kink/Ripple/Wave <input type="checkbox"/> | Inspection Incomplete/Unqualified <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Wrong Stock Pulled <input type="checkbox"/>    | Part Lost/Missing <input type="checkbox"/>    |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Material <input type="checkbox"/>                            | <input type="checkbox"/>            | Use for Testing <input type="checkbox"/>                                                                                                                                           | Cuffs <input type="checkbox"/>                  | Contamination <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Out of Sequence <input type="checkbox"/>       | Part Moved <input type="checkbox"/>           |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Internal Transport <input type="checkbox"/>                  | <input type="checkbox"/>            | Poor Information <input type="checkbox"/>                                                                                                                                          | Crushing <input type="checkbox"/>               | Countersink <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Off-set <input type="checkbox"/>               | Drawing <input type="checkbox"/>              |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Tribal Knowledge <input type="checkbox"/>                    | <input type="checkbox"/>            | Rushing <input type="checkbox"/>                                                                                                                                                   | Heat Treat <input type="checkbox"/>             | Cut Too Short <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mislabeled <input type="checkbox"/>            | Finish <input type="checkbox"/>               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| LOA <input type="checkbox"/>                                 | <input type="checkbox"/>            | Product Improvement <input type="checkbox"/>                                                                                                                                       | Wave/Twist in Tube <input type="checkbox"/>     | Instructions Incomplete/Unclear <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Fit/Function <input type="checkbox"/>          | Misread <input type="checkbox"/>              |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Substation <input type="checkbox"/>                          | <input type="checkbox"/>            | Process Improvement <input type="checkbox"/>                                                                                                                                       | Marks/Chatter <input type="checkbox"/>          | Drill Holes <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/>     |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Past Expiry Date <input type="checkbox"/>                    | <input type="checkbox"/>            | Manufacturing Process <input type="checkbox"/>                                                                                                                                     | OTHER :                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |
| Misidentified <input type="checkbox"/>                       | <input type="checkbox"/>            | Past Due <input type="checkbox"/>                                                                                                                                                  |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                |                                               |                                                                                                                                               |  |  |                                    |                                     |                                    |                                      |                                    |                                    |                                            |                                  |                                        |                                    |                                              |                                |                                    |                                    |                                   |  |

# Picklist Print

Monday, September 12, 2016 11:35:03 AM

Page 1

Work Order ID: 151155

**\*151155\***

Parent Item: D3965-4

**\*D3965-4\***

Parent Item Name: Bearing, Spherical

Start Date: 9/20/2016

Required Date: 10/5/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP RevA: New issue DD verified by:EC  
12.03.06 AS PER DWG REV.B DD VERF:EC

IPP REV:B

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| 63215K52                        |                        | Purchased     | No          |                     |                  | 110             | Each               | 0.0000         | 1           | 10           |               |                |        |
| <b>*63215K52*</b>               |                        |               |             |                     |                  |                 |                    |                | <b>**</b>   |              |               |                |        |
| Bearing Spherical               |                        |               |             |                     |                  |                 |                    |                |             |              |               |                |        |

*Handwritten notes:*  
4x  
Tx 8/16 9-15

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Step #:                                                                                                                                                                            | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | MRB (QSI042) Approval |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Completed By                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Lead hand / Supervisor Approval Verification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | QC / QA Coordinator Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |  |
| <b>Root Cause</b><br><div style="display: flex;"> <div style="flex: 1;">           Environment <input type="checkbox"/><br/>           Design <input type="checkbox"/><br/>           Doc/Data <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Pre <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Internal Transport <input type="checkbox"/><br/>           Tribal Knowledge <input type="checkbox"/><br/>           LOA <input type="checkbox"/><br/>           Substation <input type="checkbox"/><br/>           Past Expiry Date <input type="checkbox"/><br/>           Misidentified <input type="checkbox"/> </div> <div style="flex: 1;">           No Re-verification <input type="checkbox"/><br/>           Operator <input type="checkbox"/><br/>           Offset/Setup <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Training <input type="checkbox"/><br/>           Use for Testing <input type="checkbox"/><br/>           Poor Information <input type="checkbox"/><br/>           Rushing <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Past Due <input type="checkbox"/> </div> </div> |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>FAULT CATEGORY</b><br><div style="display: flex;"> <div style="flex: 1;">           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Centre Not Coñcentric <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>           Cuffs <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Heat Treat <input type="checkbox"/><br/>           Wave/Twist in Tube <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/> </div> <div style="flex: 1;">           Temperature/Cure <input type="checkbox"/><br/>           Set-up <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Inspection Incomplete/Unqualified <input type="checkbox"/><br/>           Contamination <input type="checkbox"/><br/>           Countersink <input type="checkbox"/><br/>           Cut Too Short <input type="checkbox"/><br/>           Instructions Incomplete/Unclear <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/> </div> <div style="flex: 1;">           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/> </div> <div style="flex: 1;">           Positioned Wrong <input type="checkbox"/><br/>           Outside Dimensions <input type="checkbox"/><br/>           Over/Under tolerance <input type="checkbox"/><br/>           Part Incorrect <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Part Moved <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Misread <input type="checkbox"/><br/>           Turning Sequence <input type="checkbox"/> </div> </div> |                       |  |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |  |

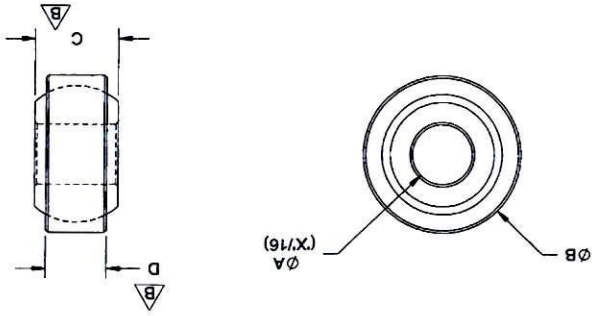


NOTES:  
 (1) MATERIAL: 440C STAINLESS STEEL WITH PTFE LINER  
 (2) FINISH: NONE  
 (3) TOLERANCES: PER DART Q01 018 UNLESS OTHERWISE NOTED  
 (4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 (5) BREAK SHARP EDGES: N/A  
 (6) IDENTIFICATION: N/A  
 (7) WEIGHT: N/A

|                                                                                                                                                                                                                                    |    |    |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|
| DESIGN                                                                                                                                                                                                                             | RF | RF | RF |
| DRAWN                                                                                                                                                                                                                              | RF | RF | RF |
| CHECKED                                                                                                                                                                                                                            | RF | RF | RF |
| MFG. APPR.                                                                                                                                                                                                                         | RF | RF | RF |
| APPROVED                                                                                                                                                                                                                           | RF | RF | RF |
| DE APPR.                                                                                                                                                                                                                           | RF | RF | RF |
| DATE 12.01.10                                                                                                                                                                                                                      |    |    |    |
| DRAWING NO. D3965                                                                                                                                                                                                                  |    |    |    |
| TITLE BEARING, SPHERICAL                                                                                                                                                                                                           |    |    |    |
| SCALE NTS                                                                                                                                                                                                                          |    |    |    |
| REV. B                                                                                                                                                                                                                             |    |    |    |
| SHEET 1 OF 1                                                                                                                                                                                                                       |    |    |    |
| DART AEROSPACE LTD<br>HAMMERSBURY, ONTARIO, CANADA                                                                                                                                                                                 |    |    |    |
| COPYRIGHT © 2009 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE PUBLIC WITHOUT LIMITATION<br>NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED IN ANY MANNER WITHOUT PERMISSION FROM DART AEROSPACE LTD |    |    |    |

| DART P/N | SUPPLIER      | SUPPLIER P/N | A     | B     | C     | D     | STATIC RADIAL LOAD CAP. lbs |
|----------|---------------|--------------|-------|-------|-------|-------|-----------------------------|
| D3965-3  | McMASTER-CARR | 63215K31     | 0.188 | 0.563 | 0.281 | 219   | 3.975                       |
| D3965-4  | McMASTER-CARR | 63215K52     | 0.250 | 0.666 | 0.344 | 0.250 | 6.040                       |
| D3965-5  | McMASTER-CARR | 63215K53     | 0.313 | 0.750 | 0.375 | 0.281 | 8.750                       |
| D3965-6  | McMASTER-CARR | 63215K34     | 0.375 | 0.813 | 0.406 | 0.313 | 10.540                      |

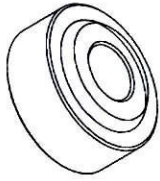
**D3965-X BEARING, SPHERICAL**  
 WHERE 'X' IS I.D. IN 1/16" OF AN INCH  
 EG Ø 1/4" (4/16") I.D. BEARING = D3965-4



# **SPECIFICATION CONTROL DRAWING**

SHOP COPY  
 RETURN TO  
 ENGINEERING  
 UNCONTROLLED COPY  
 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 151155  
 M.S.  
 1/609-12

RELEASED  
 2012-03-02





Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO33625

Purchase Order Date 9/12/2016

PO Print Date 9/12/2016

Page Number 1 of 3

Order From :  
MCMASTER-CARR SUPPLY CO,  
P.O. BOX 7690  
CHICAGO, IL 60680-7690  
US

VU-MCM001

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

SEP 12 2016

E-MAILED

|                 |                      |                |                      |
|-----------------|----------------------|----------------|----------------------|
| Contact Name    |                      | Buyer          | Chantal Lavoie       |
| Vendor Phone    | 330 995 5500         | Customer POID  |                      |
|                 |                      | Customer Tax # | 10127-2607           |
| Ship To Contact |                      | Terms          | Net 10               |
| Ship To Phone   |                      | Currency       | USD                  |
| Ship Via:       | Purolator ground ppd | FOB            | FCA - (Free Carrier) |
| Ship Acct:      |                      |                |                      |

| Line Nbr    | Reference Vendor Part Number<br>Line Comments<br>Delivery Comments | Description/<br>Mfg ID         | Req Date/<br>Taxable<br>Promise Date | CD | Req Qty/<br>Unit of<br>Measure | PO Unit Price | Extended Price |
|-------------|--------------------------------------------------------------------|--------------------------------|--------------------------------------|----|--------------------------------|---------------|----------------|
| 1           | 97395A451<br><br>AS PER DWG D 5317 REV. A<br>B151156               | Dowel Pin                      | 9/14/2016<br>Yes<br>9/14/2016        | FN | 30.00<br>Each                  | \$1.23        | \$36.78        |
| Line Total: |                                                                    |                                |                                      |    |                                |               | \$36.78        |
| 2           | 63215K52<br><br>AS PER DWG D3965 REV. B<br>B151155                 | Bearing Spherical              | 9/14/2016<br>Yes<br>9/14/2016        |    | 10.00<br>Each                  | \$15.62       | \$156.20       |
| Line Total: |                                                                    |                                |                                      |    |                                |               | \$156.20       |
| 3           | 71400-11                                                           | 5311T17 SIZE: 9<br>RUBBER BOOT | 9/14/2016<br>Yes<br>9/14/2016        |    | 1.00<br>Each                   | \$22.38       | \$22.38        |

Note:

9/12/2016





200 Aurora Industrial Pkwy  
Aurora OH 44202-8087  
330-995-5500  
cle.sales@mcmaster.com

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawkesbury ON K6A 1K7  
Canada  
Attention: Andy  
Carl

Purchase Order  
**PO33625**

Order Placed By  
**Chantal Lavoie**

McMaster-Carr Number  
**8413236-02**

Page 1 of 1

09/12/2016

| Line | Product                                                                                                           | Ordered    | Shipped |
|------|-------------------------------------------------------------------------------------------------------------------|------------|---------|
| 1    | <b>97395A451</b> Corrosion Resistant Dowel Pin, Type 316 Stainless Steel, 1/8" Diameter, 3/4" Length, Packs of 10 | 3<br>Packs | 3       |
| 2    | <b>63215K52</b> Stainless Steel Ball Joint Swivel Bearing, PTFE Lined, 1/4" ID, 21/32" OD, 11/32" Ball Thick      | 10<br>Each | 4       |
| 3    | <b>5311T17</b> PVC Work Boot, Safety Toe, 16" Height, Black, Men's Size 9<br>Your Part Number: <b>71400-11</b>    | 1<br>Pair  | 1       |
| 4    | <b>5311T17</b> PVC Work Boot, Safety Toe, 16" Height, Black, Men's Size 11<br>Your Part Number: <b>71400-11</b>   | 1<br>Pair  | 1       |
| 5    | <b>7187T29</b> Hand Brush, for Wet Use with Acids & Alkalies, 0.014" Bristle Diameter                             | 1<br>Each  | 1       |
| 6    | <b>5835A15</b> 3/8" Square Drive High-Torque Ratchet Wrench, Push-Button Release, 7-5/8" L Overall, Chrome Finish | 1<br>Each  | 1       |

Shipped separately from our Chicago warehouse on 09/12

|   |                                                                                                              |            |   |
|---|--------------------------------------------------------------------------------------------------------------|------------|---|
| 2 | <b>63215K52</b> Stainless Steel Ball Joint Swivel Bearing, PTFE Lined, 1/4" ID, 21/32" OD, 11/32" Ball Thick | 10<br>Each | 6 |
|---|--------------------------------------------------------------------------------------------------------------|------------|---|